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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7663	7590	11/23/2004	EXAMINER	
STETINA BRUNDA GARRED & BRUCKER			GRAYBILL, DAVID E	
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ALISO VIEJO, CA 92656			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,290

Applicant(s)

FOSTER, DONALD CRAIG

Examiner

David E Graybill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 2,13,18,25 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12,14-17,19-24,26-31 and 33-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1 page.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference sign "FIG. 12B" mentioned in the description. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The amendment filed 8-24-4 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is "Fig. 12B."

Applicant is required to cancel the new matter in the reply to this Office Action.

In the rejections *infra*, generally, reference labels are recited only for the first recitation of identical claim elements.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6-12, 14, 16, 17, 19, 23, 24, 29, 30, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (JP10135399) and Tanaka (JP61170053).

In the English abstracts, English translation and drawings, Tanaka '399 discloses the following:

A leadframe comprising: a plurality of leads, each lead comprising a first surface, an opposite second surface, and an inner end segment 19 beginning at an inner end of the lead, wherein a first subset of the leads each include a recess 19a in the first surface of the lead at the inner end segment, a second subset of the leads, and the individual leads of the first subset are situated in an alternating lateral pattern with the individual leads

of the second subset; a plurality of electrical conductors 24, wherein the inner end segments are respectively electrically connected to a semiconductor chip 22 by one of said plurality of electrical conductors; where at least some of the plurality of electrical conductors 24a are respectively electrically connected within the recess of the respective inner end segment.

A leadframe comprising: a plurality of pairs of adjacent metal leads, wherein each lead includes an inner end segment beginning at an inner end of the lead, said inner end segments including a recessed surface; a plurality of electrical conductors, wherein the inner end segments of the leads are respectively electrically connected to a semiconductor chip by one of said plurality of electrical conductors, and at least some of said plurality of electrical conductors are connected to the recessed surface of the respective inner end segment; a dam bar 16, wherein the leads extend from a dam bar.

A leadframe comprising: a plurality of adjacent pairs of leads each including an inner end segment beginning at an inner end of the lead, wherein the inner end segments include a recessed surface; a plurality of electrical conductors, wherein the inner end segments of the pairs of adjacent leads are respectively electrically connected to a semiconductor chip by one of said plurality of electrical conductors, and at least some of

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said plurality of electrical conductors are connected to the recessed surface of the respective inner end segment.

A semiconductor package comprising: a plurality of adjacent pairs of leads each including an inner end segment beginning at an inner end of the lead, wherein the inner end segments include a recessed surface; a semiconductor chip in an electrical connection with the inner end segments of the leads; and a hardened encapsulant material 26 covering the semiconductor chip and the inner end segments of the leads; wherein the electrical connection comprises a plurality of electrical connectors bonded between the semiconductor chip and the inner end segments, wherein at least some of said electrical conductors are bonded to the recessed surface of the respective inner end segment.

A semiconductor package comprising: a plurality of pairs of adjacent metal leads, wherein each lead includes an inner end segment beginning at an inner end of the lead, said inner end segments including a recessed surface; a semiconductor chip in an electrical connection with the inner end segments of the leads; and a hardened encapsulant material covering the semiconductor chip, the conductors, and the inner end segments of the leads; wherein the electrical connection comprises a plurality of metal wires bonded between the semiconductor chip and the inner end segments,

wherein at least some of said wires are bonded to the recessed surface of the respective inner end segment.

However, Tanaka '399 does not appear to explicitly disclose wherein a second subset of the leads each include a recess in the second surface of the lead at the inner end segment; said inner end segments each including a recessed surface; wherein each recess has a vertical depth that is more than half of a vertical height of the lead.

Nonetheless, in the English abstract and drawings, Tanaka '053 discloses wherein leads each include a recess in the second surface of the lead at the inner end segment 2; said inner end segments each including a recessed surface; wherein each recess has a vertical depth that is more than half of a vertical height of the lead. Moreover, it would have been obvious to combine the product of Tanaka '053 with the product of Tanaka '399 so that the second subset of the leads each include a recess in the second surface of the lead at the inner end segment (see Drawing 3), and wherein each recess of has a vertical depth that is more than half of a vertical height of the lead, because it would provide a narrow lead interval which is disclosed as desirable by both Tanaka '399 and Tanaka '053.

However, the combination of applied prior art does not appear to explicitly disclose that the leads are situated such that the recesses in the inner end segments of the leads of each pair of adjacent leads are oriented

in opposite directions; wherein the recessed surfaces of the leads of each said pair of adjacent leads are spaced apart a first distance in a vertical direction; wherein the first distance is greater than half a vertical height of an unrecessed portion of the lead; and the recessed surfaces of the inner end segments of the leads of each of the pairs are oppositely oriented.

Nevertheless, these limitations are inherent properties of the product of the combination of applied prior art.

Also, the combination of applied prior art does not appear to explicitly disclose wherein the second distance is approximately zero; and wherein the second distance is zero.

Regardless, both Tanaka '399 and Tanaka '053 disclose the desirability of narrow lead intervals; thus, they disclose that horizontal lead distance is a result-effective variable. Moreover, it would have been an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation and optimization to choose the particular claimed horizontal lead distance limitations because applicant has not disclosed that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another distance. Indeed, it has been held that optimization of range limitations are prima facie obvious absent a disclosure that the limitations are for a particular

unobvious purpose, produce an unexpected result, or are otherwise critical. See MPEP 2144.05(II): "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.'" In re Aller, 220 F.2d 454, 105 USPQ 233, 235 (CCPA 1955). See also In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969), Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989), and In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990). As set forth in MPEP 2144.05(III), "Applicant can rebut a prima facie case of obviousness based on overlapping ranges by showing the criticality of the claimed range. 'The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.' In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP § 716.02 - § 716.02(g) for a discussion of criticality and unexpected results." Similarly, it has been held that mere dimensional limitations are prima facie

obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Furthermore, although the combination of applied prior art does not appear to explicitly disclose that the first distance is greater than a second distance in a horizontal direction between closest portions of the recessed surfaces of the leads of each of the pairs of adjacent leads, this is an inherent property of the product of the combination of applied prior art because the first distance is inherently greater than the second distance of approximately zero.

Claims 4, 5, 22, 28, 35, 40, 43, 46 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Tanaka as applied to claims 1, 9, 17, 23 and 29, and further in combination with Tanigawa (JP03245560).

As cited *supra*, Tanaka '399 discloses wherein the leads include a first portion between the inner end segment and a dam bar of the leadframe.

However, the combination of Tanaka and Tanaka do not appear to explicitly disclose wherein a width of the inner end segments at the respective recess is greater than a width of the first portion of the leads; wherein a width of the inner end segments at the respective recess therein is greater than a width of the lead outward of the inner end segment; wherein a width of the inner end segment is greater than a width of the lead outward of the inner end segment; wherein the inner ends of the leads of the first subset extend further toward a center of the leadframe than the inner ends of the leads of the second subset; wherein the inner end of one lead of each said pair extends further toward a center of the leadframe than the inner end of the other lead of the pair; wherein the inner end of one lead of each said pair extends further toward the semiconductor chip than the inner end of the other lead of the pair.

Still, in the English abstract and drawings, Tanigawa discloses wherein a width of the inner end segments 4 is greater than a width of the first portion 5 of the leads 3; wherein a width of the inner end segments is greater than a width 5 of the lead outward of the inner end segment; and wherein a width of the inner end segment is greater than a width of the lead outward of the inner end segment; wherein the inner ends of the leads of a first subset extend further toward a center of the leadframe 1 than the inner ends of the leads of a second subset; wherein the inner end of one lead of

each of a pair extends further toward a center of the leadframe than the inner end of the other lead of the pair.

In addition, it would have been obvious to combine this product of Tanigawa with the product of the combination of Tanaka and Tanaka because it would provide a desirable narrow lead interval.

Claims 36, 38, 41, 44, 47 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Tanaka as applied to claims 1, 9, 17, 23 and 29, and further in combination with Miyamoto (JP03024754).

As cited supra, the combination of Tanaka and Tanaka discloses wherein the recesses of the second subset of the leads extend to the inner end of the lead; wherein the recessed surface of the other lead of the pair extends to the inner end of the lead.

However the combination of Tanaka and Tanaka do not appear to explicitly disclose where the inner end segments of the leads of the first subset include a pedestal between the inner end of the lead and the recess; wherein one lead of each said pair includes a pedestal between the inner end of the lead and the recessed surface.

Notwithstanding, in the English abstract and drawings, Miyamoto discloses where the inner end segments of the leads 2 of a first subset include a pedestal 2b between the inner end of the lead and the recess 2a;

wherein one lead of a pair includes a pedestal between the inner end of the lead and the recessed surface. Furthermore, it would have been obvious to combine this product with the product of the applied prior art because it would enable stable loop formation.

Claims 37, 39, 42, 45, 48, 49 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka, Tanaka and Miyamoto, as applied to claims 36, 38, 41, 44, 47 and 50, and further in combination with Handa (JP59129451).

As cited, the combination of Tanaka, Tanaka and Miyamoto inherently discloses wherein the electrical connection to the lead of the pair having the pedestal is located at the pedestal because the pedestal is inherently electrically connected to the lead.

However, the combination of Tanaka, Tanaka and Miyamoto does not appear to explicitly disclose wherein the inner ends of the leads of the first subset extend further toward a center of the leadframe than the inner ends of the leads of the second subset; wherein the inner end of one lead of each said pair extends further toward a center of the leadframe than the inner end of the other lead of the pair.

Regardless, in the English abstract and drawings, Handa discloses wherein the inner ends of the leads 5 of a first subset extend further toward a center of a leadframe than the inner ends of the leads 6 of the second

subset; wherein the inner end of one lead of each said pair extends further toward a center of the leadframe than the inner end of the other lead of the pair. Moreover, it would have been obvious to combine this product of Handa with the product of the applied prior art because it would improve connection reliability.

Claims 3, 15, 20, 26 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Tanaka as applied to claims 1, 9, 17, 23 and 29, and further in combination with Miyamoto (JP03024754) and Handa (JP59129451).

The combination of Tanaka and Tanaka does not appear to explicitly disclose wherein the recess of the inner end segment of the leads of the first subset does not extend to the inner end of the lead, and the leads of the first subset extend further toward a center of the leadframe than the leads of the second subset; wherein the recessed surface of one of the leads of the pairs does not extend to the inner end of the lead, and those leads extend further toward a center of the leadframe than the other lead of the respective pair; wherein the recessed surface of one of the leads of the pairs does not extend to the inner end of the lead, and those leads extend further toward the semiconductor chip than the other lead of the respective pair.

Nonetheless, as cited *supra*, Miyamoto and Handa disclose these limitations, and they are applied to the rejection for the same reasons they were applied to the rejection of claims 37, 39, 42, 45, 48 and 51.

Claims 17, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Gursky (4283839).

At column 6, lines 5-30; column 7, lines 20-44; column 8, lines 27-35; and column 8, line 47 to column 9, line 9, Gursky discloses the following:

A leadframe comprising: a plurality of adjacent pairs of leads 28, 30 each including an inner end segment beginning at an inner end 36 of the lead, wherein the inner end segments each include a recessed surface 44, and the recessed surfaces of the inner end segments of the leads of each of the pairs are oppositely oriented; wherein the recessed surface of one of the leads (28 or 30) of the pairs does not extend to the inner end of the lead, and those leads extend further toward a "center" of the leadframe than the other lead (the other of 28 or 30) of the respective pair; wherein a semiconductor chip 52 is in a flip chip electrical connection with the inner end segments.

To further clarify the disclosure that those leads (28 or 30) extend further toward a center of the leadframe than the other lead (the other of 28 or 30) of the respective pair, it is noted that leads 28 extend a greater distance along the greater lengths of the leads toward the center than leads

30, and leads 30 extend to a more advanced point toward the center than leads 28.

Claims 23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Gursky (4283839) and Drees (4026008).

As cited *supra*, Gursky discloses a semiconductor package comprising: a plurality of adjacent pairs of leads each including an inner end segment beginning at an inner end of the lead, wherein the inner end segments each include a recessed surface, and the recessed surfaces of the inner end segments of the leads of each of the pairs are oppositely oriented; a semiconductor chip in an electrical connection with the inner end segments of the leads; and an encapsulant material; wherein the semiconductor chip is in a flip chip electrical connection with the inner end segments.

To further clarify the disclosure of an encapsulant material, Gursky discloses "encapsulation steps," and an encapsulant material is an inherent result of the encapsulation steps.

However, Gursky does not appear to explicitly disclose a hardened encapsulant material covering the semiconductor chip, the conductors, and the inner end segments of the leads.

Still, at column 6, lines 5-55, Drees discloses a hardened encapsulant material 19 covering the semiconductor chip 17, the conductors 18, and the

inner end segments of the leads. Furthermore, it would have been obvious to combine this product of Drees with the product of Gursky because it would enable the encapsulation of Gursky.

To further clarify the disclosure of a hardened encapsulant material this is an inherent result of the "injection molding process" of Drees.

Applicant's amendment and remarks filed 8-24-4 have been fully considered, are addressed by the rejections *supra*, and are further addressed *infra*.

Applicant contends that the combination of Tanaka '053 and Tanaka '399 would be inoperable because, "Tanaka '399's intended purpose to avoid wire shorting would be eliminated in the combination, because Tanaka '053 teaches that all inner leads 2 should be identical and should have recesses that face in a common direction. That is, there would be no level difference between the inner leads in the combination."

This contention is respectfully traversed because Tanaka is not necessarily applied for a disclosure that all inner leads 2 should be identical and should have recesses that face in a common direction, and there would be a level difference between the inner leads in the combination.

Also, applicant argues that the applied prior art teaches away from the limitation, "said first distance is greater than a second distance in a horizontal direction between closest portions of the recessed surfaces of the

leads of each said pair of adjacent leads," because, allegedly, the applied prior art discloses embodiments not encompassed by the scope of the limitation.

This argument is respectfully deemed unpersuasive because disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In *re Susi*, 169 USPQ 423 (CCPA 1971). "A known or obvious composition [such as the instant claimed adhesive composition] does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In *re Gurley*, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). To further clarify, a prior art opinion that a claimed invention is not preferred for a particular limited purpose, does not preclude utility of the invention for that or another purpose, or even preferability of the invention for another purpose. Moreover, even a teaching away from a claimed invention does not necessarily render the invention patentable. See *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998), where the court held that the prior art anticipated

the claims even though it taught away from the claimed invention. "The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed." Similarly, in *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997) applicant argued that the prior art taught away from use of a protective layer for a reflective article having a thickness within the claimed range of "50 to 100 Angstroms." Specifically, a patent to Zehender, which was relied upon to reject applicant's claim, included a statement that the thickness of the protective layer "should be not less than about [100 Angstroms]." The court held that the patent did not teach away from the claimed invention. "Zehender suggests that there are benefits to be derived from keeping the protective layer as thin as possible, consistent with achieving adequate protection. A thinner coating reduces light absorption and minimizes manufacturing time and expense. Thus, while Zehender expresses a preference for a thicker protective layer of 200-300 Angstroms, at the same time it provides the motivation for one of ordinary skill in the art to focus on thickness levels at the bottom of Zehender's suitable range - about 100 Angstroms - and to explore thickness levels below that range. The statement in Zehender that [i]n general, the thickness of the protective layer should be not less than about [100 Angstroms] falls far short of the kind of teaching that would discourage one of skill in the art

from fabricating a protective layer of 100 Angstroms or less. [W]e are therefore not convinced that there was a sufficient teaching away in the art to overcome [the] strong case of obviousness made out by Zehender." See MPEP 2144.05II and MPEP 2145, paragraph X.D..

In addition, applicant asserts, "reliance on the doctrine of routine optimization is inapplicable to claims 9 and 29, because the claims focus on the relative size of the 'first distance' and the 'second distance,' not to a specific value or range of either of these first and second distances.

This assertion is respectfully deemed unpersuasive because it is not necessarily maintained in the rejection that the limitations of claims 9 and 29 are obvious by routine experimentation. Instead, it is maintained that the limitations, "wherein the second distance is approximately zero," and, "wherein the second distance is zero," would have been obvious by routine experimentation supported by legal precedent.

Applicant also argues that the rejections of claims 1, 6-12, 14, 16, 17, 19, 23, 24, 29, 30, 31 and 33 based on inherency are improper because, allegedly, when combined in ways other than in the rejections, the limitations are not inherent.

This argument is respectfully deemed unpersuasive because the prior art is not necessarily applied in the rejections in ways other than in the rejections.

Applicant further contends that Miyamoto would render the combination of applied prior art inoperable because, "Miyamoto's asserted benefit of eliminating wire sag would be eliminated for all of the leads with downward facing recesses."

This contention is respectfully deemed unpersuasive because Miyamoto is not necessarily applied to all of the leads with downward facing recesses.

Also, applicant argues that, "The grooves [44?] [sic] of Gursky are not part of an 'inner end segment' of Gursky's leads 28 of Figs. 2 and 5C, but rather are at the extreme outer end 34 of the leads 28."

This argument is respectfully traversed because the term "inner" is a relative term, and there is a frame of reference wherein the end segment is an inner end segment. Indeed, as cited, Gursky discloses "inner lead cluster 24 [28 and 30] against outer lead ends 86.

In addition, applicant asserts, "the cross-sectional view of Gursky's leads 28, 30 (see Fig. 3) do not show any recessed surfaces of the type recited in claim 17 near free ends 36 of the leads 28, 30."

This assertion is respectfully deemed unpersuasive because the scope of claim 17 is not limited to free ends, and the Fig. 3 cross-sectional view of Gursky's leads 28, 30 is not necessarily relied on for a showing of any

recessed surfaces of the type recited in claim 17 near free ends 36 of the leads 28, 30.

Applicant also submits, "if each pair of leads includes one lead 28 and one lead 30, then there are no 'adjacent pairs.'

This submission is respectfully traversed because it is a mere conclusion unsupported by rationale, and it is incorrect because Gursky discloses adjacent pairs.

Applicant also states, "This rejection is difficult to understand, because the Examiner cites to a 'recessed surface 44' and to column 6, lines 5-30 and column 7, lines 20-44. But no 'recessed surface 44' or 'recessed surface' is discussed in those portions of Gursky. Applicant further professes to be, "at a loss in trying to figure out the rejection, especially in view of the Examiner's error in referring to a 'recessed surface 44.'"

These statements are respectfully deemed unpersuasive because they are based on an unreasonably strained interpretation of the rejection. Specifically, the inclusion of Gursky in the statement of the rejection makes Gursky available for its entire disclosure, and the particular column and line number citation is merely a clarification in the interest of applicant's convenience and compact prosecution. It is respectfully submitted that it is unreasonable to ignore the disclosure of Gursky pertaining to cited reference

character 44 merely because there is allegedly no cited written disclosure of the reference character.

In addition, applicant proffers, "It is true, but irrelevant, that Gursky's 'long leads 28' are longer than 'short leads 30.'

It is respectfully submitted that this truth is not irrelevant because it is a disclosure that leads 28 extend further toward a center of the leadframe than leads 30.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

For information on the status of this application applicant should check PAIR: Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Alternatively, applicant may contact the File Information Unit at (703) 308-2733. Telephone status inquiries should not be directed to the examiner. See MPEP 1730VIC, MPEP 203.08 and MPEP 102.

Any other telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (571) 272-1930. Regular office hours:

Monday through Friday, 8:30 a.m. to 6:00 p.m.

The fax phone number for group 2800 is (703) 872-9306.



David E. Graybill
Primary Examiner
Art Unit 2827

D.G.

16-Nov-04